CLAIMS

What is claimed is:

1.   A method for providing redundancy and recovery for a first memory device designated

primary by utilizing a second memory device designated backup, the method comprising:

        detecting an uncorrectable error in data received from or sent to the first memory device

designated primary; and

        switching the designation of the first memory device from primary to backup and the

designation of the second memory device from backup to primary in response to said detecting.

2.   The method of claim 1, further comprising:

        copying contents of the primary memory device to the backup memory device at

specified intervals.

3.   The method of claim 3, further comprising:

        testing the memory device now designated backup after said switching.

4.   The method of claim 3, further comprising:

        marking pages or parts of the memory device now designated backup as bad if said

testing so indicates.

5.   The method of claim 3, further comprising:

notifying the control system that the memory device now designated backup is bad if said

testing so indicates.

6.   An apparatus for providing memory redundancy and recovery in a system including a

first memory device designated primary and a second memory device designated backup, the

apparatus comprising:

an uncorrectable error detector coupled to said first memory device designated primary

and said second memory device designated backup; and

a memory device designation switcher coupled to said uncorrectable error detector.

7.   The apparatus of claim 6, further including a boot-time memory device designator

coupled to said memory device designated primary and to said memory device designated

backup.

8.   The apparatus of claim 6, further comprising:

a memory device contents copier coupled to said memory device designated primary and

to said memory device designated backup;

an interval specifier coupled to said memory device contents copier.

9.   The apparatus of claim 8, further comprising:

a switched memory device tester coupled to said memory device.

10.   The apparatus of claim 9, further comprising:

a tested-bad memory device page or part marker coupled to said memory device tester.

11.   The apparatus of claim 10, further comprising:

a memory device in-service placer coupled to said tested-bad memory device page or part

marker.

12.   The apparatus of claim 9, further comprising:

a tested-bad memory device notifier coupled to said memory device tester.

13.   The apparatus of claim 9, further comprising:

a designated backup memory device in-service placer coupled to said memory device

tester.

14.   The apparatus of claim 13, further comprising:

a back-in-service memory device notifier coupled to said a memory device in-service

placer.

15.   An apparatus for providing redundancy and recovery for a first memory device

designated primary by utilizing a second memory device designated backup, the apparatus

comprising:

means for detecting an uncorrectable error in data received from or sent to the first

memory device designated primary; and

means for switching the designation of the first memory device from primary to backup

and the designation of the second memory device from backup to primary in response to said

detecting.

16.   The apparatus of claim 15, further comprising:

means for copying contents of the primary memory device to the backup memory device

at specified intervals.

17.   The apparatus of claim 33, further comprising:

means for testing the memory device now designated backup after said switching.

18.   The apparatus of claim 17, further comprising:

means for marking pages or parts of the memory device now designated backup as bad if

said testing so indicates.

19.   The apparatus of claim 17, further comprising:

means for notifying the control system that the memory device now designated backup is

bad if said testing so indicates.

20.   A system for providing memory redundancy and recovery, the system comprising:

a first memory device designated primary;

a second memory device designated backup;

one or more processors coupled to said memory device designated primary and said

memory device designated backup;

an operating system including:

an uncorrectable error detector coupled to said memory device designated primary

and memory device designated backup; and

a memory device designation switcher coupled to said uncorrectable error

detector.

21.   The system of claim 20, further comprising:

a memory device contents copier coupled to said first memory device designated primary

and to said second memory device designated backup; and

an interval specifier coupled to said memory device copier.

22.   A system for providing memory redundancy and recovery, the system comprising:

a first memory device designated primary;

a second memory device designated backup;

a processor coupled to said first memory device designated primary;

a processor coupled to said second memory device designated backup;

an operating system including:

an uncorrectable error detector coupled to said memory device designated primary

and memory device designated backup; and

a memory device designation switcher coupled to said uncorrectable error

detector.

23.   The system of claim 22, wherein said operating system further comprises:

a boot-time memory device designator coupled to said memory device designated

primary and memory device designated backup.

24.   The system of claim 22, wherein said operating system further comprises:

a memory device contents copier coupled to said first memory device designated primary

and said second memory device designated backup; and

an interval specifier coupled to said memory device copier.

25.   A program storage device readable by a machine, tangibly embodying a program of

instructions executable by the machine to perform a method for providing redundancy and

recovery for a first memory device designated primary by utilizing a second memory device

designated backup, the method including:

detecting an uncorrectable error in data received from or sent to the first memory device

designated primary; and

switching the designation of the first memory device from primary to backup and the

designation of the second memory device from backup to primary in response to said detecting.